

## Joan Patten's Notes



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## SUMMARY OF REMARKS ON DELTA VESSEL SEWAGE DISCHARGES

The San Francisco Estuary Project has been educating the boating community on the subject of vessel sewage discharge for the past three years in cooperation with the California Department of Boating and Waterways, under a Clean Vessel Act grant. Congress passed the Clean Vessel Act, a \$40 million grant program, in 1992 to fund construction/renovation of pumpout stations and to educate boaters about proper disposal of vessel sewage. Congress found that "sewage discharged from recreational vessels because of an inadequate number of pumpout stations is a substantial contributor to localized degradation of water quality in the U.S." The boater education program developed by the San Francisco Estuary Project is now being used in the L.A. and San Diego regions and will soon be transported to northern California coastal cities.

The Estuary Project has many goals in common with CALFED. The reduction of pollution from nonpoint sources including recreational vessels is among them, and we look forward to working cooperatively with CALFED to reduce pollution from vessel sewage discharges.

The San Francisco Bay-Delta Estuary is a boater's paradise with 1000 miles of Delta channels and sloughs, the open waters of San Francisco Bay, and entree to the 1000 mile California coastline. The Bay-Delta has 241,000 registered boats. Within the Delta, there are about 80 marinas. Slightly less than half have pumpouts. The cost and hours of operation vary. Six marinas are free to all, others are free to tenants only, and still others charge up to \$30 for pumping out. Studies show boaters will use pumpouts if they are readily accessible, easy to use, and free or cheap.

Although it is illegal, some boaters still discharge untreated sewage into U.S. territorial waters. Untreated sewage can:

- 1) Spread disease
- 2) Contaminate shellfish beds
- 3) Decrease the amount of oxygen levels available to fish
- 4) Contribute unsightly floatables

The primary concerns from raw sewage are related to public health and shellfish contamination. Contact with polluted water can result in gastrointestinal diseases, hepatitis, skin infections, respiratory illnesses, hepatitis and even typhoid or cholera. Shellfish from contaminated shellfish beds can pass these diseases to humans who eat raw or poorly cooked clams, mussels and oysters.

The usual method of testing for sewage-contaminated water is by taking fecal coliform counts. High counts indicate the presence of raw sewage, but do not differentiate between

human and animal sources. Even if sewage originates from a human source, it is difficult to know whether it comes from a boat, a malfunctioning septic system or a sewage treatment plant. Also, coliform counts do not indicate the presence of pathogens. Therefore, it is not possible to know if there are pathogens - or which pathogens - present even if there are high coliform counts. A better method is needed for indicating pathogens.

The Delta has a variety of water contact sports - boating and houseboating, swimming, windsurfing, waterskiing and jetskiing, and fishing. In addition, there are important freshwater intakes, including Clifton-Court Forebay. Although there are no shellfish beds in the Delta, there are commercial beds in Tomales Bay and many recreationally-harvested beds in San Francisco Bay. With all of these uses, there is a potential public health threat from exposure to polluted water.

Although small in volume, boat sewage is highly concentrated. The bacterial pollution from one week-end boater is equivalent to the effluent from 10,000 persons whose sewage passes through a sewage treatment system. Delta boaters need to be careful about the chemicals they use in their toilets to disinfect and deodorize wastes because they may be disposing of wastes to septic systems that are sensitive to formaldehyde and other ingredients.

Not all boats have installed toilets and many boaters use public toilets or port-a-potties. Boaters with installed toilets must be connected to a Coast Guard approved Marine Sanitation Device (MSD). There are three types of MSDs - all designed to reduce pollution from vessel sewage discharges. A type I and II treat the sewage for overboard discharge. The most common MSD, a type III, is basically a holding tank which must be pumped out at an onshore pumpout station. Boats frequently have a "Y" valve which allows boaters to direct wastes into the holding tank or directly overboard. Boats operating in the Delta or other inland waters must secure the "Y" valve handle in the closed position with a wire tie or padlock. Overboard discharges frequently are caused by intentional or unintentional misuse of the "Y" valve.

In responding to the CALFED action on using enforcement to reduce sewage violations from recreational vessels ---

- 1) Are recreational vessels a primary source of untreated wastes? Based on our experience with the boating community over the past three years, it seems that boats are a contributing source - one that is illegal and unnecessary. However, there simply is not the data to quantify the amount. We hear from other boaters and the Coast Guard that discharges are commonly sighted. We also hear from marinas that their pumpouts are not used often.
- 2) Would more enforcement help? Yes, however, there has been confusion about the regulatory structure and who is responsible for what. The San Francisco Estuary Project is holding a meeting with regulatory agencies in mid-April to clarify responsibilities and to better understand how regulations are being enforced. There is the perception in the boating community that enforcement is lax. The meeting should help clarify responsibilities as well as the extent of the problem.

- 3) **Other suggestions:** Various agencies have various regulatory responsibilities. Therefore, it is important to clarify what regulations should be better enforced and also to determine whether regulatory gaps exist. In addition to enforcement, education is needed and more pumpouts for the Delta. The Clean Vessel Act provides a window of opportunity for federal funding, and construction of new pumpouts should be supported.

One creative suggestion is to develop a partnership with Boating and Waterways. A demonstration project could be started in a populated area of the Delta which has many marinas. Boating and Waterways could help fund construction of new pumpouts and floating toilets, and could educate marina tenants on how to use the facilities. CALFED could help fund a mobile Delta pumpout service for other marinas that are unable to support a septic system pumpout. The traveling service would pumpout the holding tanks of marina tenants or liveaboards to encourage proper disposal of wastes. A similar project was successfully implemented in another part of the U.S.